NEW ENGLAND FARMER.

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INTERNAL IMPROVEMENT.

RAILWAYS.—No. III.

(By the Editor.)

(Continued from page 210.)

In our former observations under this head we have attempted to show the importance to a civilized community of establishing the best ways and means of transporting commodities, and facilitating domestic as well as foreign intercourse. We then gave a concise view of the advantages of railways, as exemplified by the practice of Great Britain. We shall pursue the subject with more regard to stating facts and arguments, than to that methodical arrangement, which might be required in a complete treatise.

"Next to the genial influence of the seasons, upon which the regular supply of our wants, and a great portion of our comforts so much depend, there is perhaps no circumstance more interesting to men in a civilized state than the perfection of the means of interior communication." This sentiment, quoted from one of the reports of a Committee of the House of Commons, in Great Britain, ought to be a governing maxim with legislators, statesmen, and all others, who possess any control or influence in public affairs. Roads, canals, and navigable rivers are of almost as much consequence to the body politic as veins and arteries to the body natural.

The most common and most expeditious means of interior communication is found in roads.—These are of various kinds, such as foot paths, horse roads, and carriage roads, of which some consist wholly of the natural soil, some are paved, some are what is called *M'Adamized*, and others are denominated railroads, or railways. This last named species of road, is we believe, generally allowed by competent judges, to be far preferable to any other for quick, safe, and easy transportation.

Turnpike roads are so well known, and their benefits, in certain locations, are so highly appreciated, that nothing in their favor need to be urged by us. But a turnpike running from nothing to nought; or laid out through tracts of country where good roads previously existed or might easily be made to exist; or, in short, a road, where toll must be gathered to defray the expense of its construction, although such road is not imperatively called for by the wants of the country, is at best a broad way, leading its owners to destruction. So it would be with a railway under similar circumstances. But we believe, in most cases, where a turnpike would prove useful a well constructed railway would be still more valuable. If a turnpike from Boston to Albany, for example, would be beneficial to the public, and profitable to its owners, a railway between the same places would present superior facilities for travelling and be preferable to the turnpike. To make this appear we will state some items in comparative estimate of the expenses and advantages of a railway and a turnpike, or other good road of the common construction.

The ingenious Dr Anderson [a British writer] with a view to discover how far it may be practicable to introduce iron railways into general use, has made some inquiries respecting the expense of making them. He says "In the most eligible situation, where materials are abundant and good, and circumstances favorable, the lowest expense at which a *single* railway can be made will be about one thousand pounds a mile. But as a single railway must be liable to great inconveniences, unless under very particular circumstances, double railways ought to be considered as the only useful sort.—These should be very substantially made. The metal used should be of the stoutest sort, and of substance enough not merely to carry the weights proposed, but to be equal to bearing any blow or shock that they may be likely to experience; and, thus made, what they will lose by rust or wear, will be long ere it materially weakens them.—Made after such a manner, in favorable situations in the country, a double railway may cost about two thousand pounds a mile. It is bad economy to save on articles of this sort at the first; for the little extra expense laid out then will save much in repair; how *small these* repairs are *may be imagined from this circumstance, that when a road is thus made the undertaker does not scruple to supply all that are broken, free of charge, for the first three years.* Say then that such a road costs three thousand pounds, a mile, this would bring a charge upon the turnpike [at 5 per cent interest] of 150*l.* a year; say 50*l.* more for annual repairs; this is, in all 200*l.* per *annum*. Compare this with the expense of keeping the present roads in repair.—It has been suggested that there is annually laid out in repairs upon the road from Hyde Park Corner to Hounslow, considerably above one thousand pounds a mile; so that difference of expense is, even at the beginning, very much in favor of rail ways; and were the money thus at first expended to be gradually paid off, the tolls might thus be lowered almost to nothing."

We have been favored, by a friend, with a pamphlet, published in Philadelphia, entitled "Facts and Arguments in favor of adopting Railways instead of Canals," &c. This is ably written; the author's facts appear to be indisputable, and his arguments incontrovertible. He says that, "The expense of constructing a turnpike *in a proper manner is almost equal* to that usually expended per mile on a canal. The best turnpikes in America have cost from 9 to 12,000 dollars per mile. The average cost of the Lancaster and Philadelphia turnpike was 9,000 dollars per mile, the Germantown turnpike cost 11,000 dollars per mile. Part of the national or Cumberland road cost 17,000 dollars per mile; these roads if *M'Adamized* would cost more in the first instance, but the expense for repairs would be considerably diminished. The repairs depend in a great measure on the use to which the road is devoted, and the frequency of the same. On some roads in the United States, the expense is equal to interest on the principal of the sum expended in their construction. Near London, in consequence of the frequency of travelling, 1,000 pounds sterling per mile is annually required to preserve the great roads leading to the metropolis in repair. The repairs of a canal, when *correctly constructed* are less expensive than those required on a road *frequently used*; the difference in the expense of these repairs, which of course should be added to those expended on roads will exhibit the relative expense of both to the public."

It should seem from the preceding data that the prime cost of a railway, and a turnpike road, both being constructed in a substantial manner is much the same. But railways do not require for repairs any approximation to the sum necessary to keep a turnpike in good order. We will next inquire what are the advantages for transport which each presents. It is observed by the Directors in the Report on a Rail Road from Boston to Hudson river, that a rail road "is a simple structure, and its advantages are so manifest that it is remarkable that it has not been sooner introduced into extensive use. The advantage which it possesses for giving an easy motion to heavily loaded carriages arise from the even and unyielding surface of the iron rail, on which the wheels of the carriages travel. By this means, if the rails are level every obstacle to the motion of the load is removed, except the friction at the axles of the carriages, and a slight friction at the flanges, which are attached to the tires of the wheels for the purpose of keeping them upon the rails. The amount of this friction both at the axles and the flanges, on a good rail road, and with carriages of a proper and convenient construction, has been ascertained by accurate observation on rail roads which have been long in constant use. The precise degree of resistance from this cause depends upon the degree of evenness and solidity of the rail, and the form and size of the axles and wheels; but with carriages in common use, of a cheap and convenient construction, with wheels of three feet in diameter, and on the common English iron rails properly laid, the power necessary to keep a load in motion, when the road is level, is found not to exceed 11 lbs. to a ton; that is no greater exertion is required to move a load weighing 2224 lbs. than to raise a weight of 11 lbs. suspended by a cord passing over a pulley. The friction is in proportion to the weight of the load, and is the same, whether the motion is rapid or slow.

"Horses employed in drawing heavy loads are often made to exert a power for short distances equal to raising a weight of 3 or 400 lbs. But the measure of steady performance through the day for a horse moving at a slow and natural pace, and travelling 20 miles a day, may be taken at about 125 lbs. This exertion is equivalent to drawing a load of 11 or 12 tons, the weight of carriages included, on a good level rail road," &c. They then state that "It is found by the surveys which have been made, that the heights between Boston and the Hudson river may be passed by an inclination not exceeding in any part the rate of eighty feet in a mile, and without prolonging the distance more than an eighth or tenth part beyond that of the most direct road. A rail road laid with as uniform an inclination as is practicable, on the line of this survey, will require on the steepest parts of it double the power which would be necessary if the road were level from one extremity to the other. The other expenses of conveyance would be no greater on the rail road with this degree of inclination than if the whole was level." It appears, in short, to be the opinion of

scientific men, and professed engineers, that on the most level part of the contemplated rail road from Boston to Albany, or about three-fifths of the whole distance, a single horse will draw 11 or 12 tons at the rate of 20 miles a day. That on about two-fifth parts of the same road two horses only will be required to draw the same load at the same rate. But, on turnpikes, as generally constructed in the United States, two horses can rarely draw more than 14 cwt. each including the weight of the wagon. In other words the power of a horse on the proposed railway in its steepest part if compared with the power of a horse on a common turnpike is as 14 cwt. to five and an half or six tons.

(To be continued.)

FOR THE NEW ENGLAND FARMER.

BEE MOTH, BEANS, RAZOR STRAPS, &c.

Mr Editor—I am a practical farmer. In my book of minutes, detailing and elucidating the useful results to which my experience has led, there are, perhaps, some items, which may be of service to your readers.

BEE MOTHS.

The sagacity of man enables him to discover the peculiar habits, which instinct leads the subordinate creation to adopt for self preservation, and his inventive faculty frequently suggests to him, some mode, by which the distinctive habits of such as are noxious may be conducive to their destruction. Thus we discover that instinct teaches the *Bee moth* to secrete herself during the day, in the corners of the hive. All, therefore, necessary to be done, is to take such advantage of this fact as that this most pernicious enemy shall rush to its own destruction. For this purpose let the orifice of the hive be 4 inches wide, and one inch high. At the commencement of the season for the moth, place a shingle on the bottom or floor of the hive. You will find in the morning that almost every moth has taken refuge under it. They are thus readily despatched. This is the mode I have practised with my own bees, and not a single hive has ever been injured.

A THRIFTY BEAN.

In the summer of 1827, I discovered among my bush beans a single vine remarkably thrifty, and throwing out runners. I erected a pole at the place, and the vine was trained upon it. It grew during the summer with the utmost luxuriance and beauty, attracting notice from every passing traveller. When arrived at maturity it presented a complete congeries of pods. The number of beans from the vine was 1223, and the weight of $1\frac{1}{4}$ lbs. In the same ratio of increase I should have had, this fall, $1528\frac{3}{4}$ lbs. or 1,495,729 beans —and in the autumn of 1829, 1,869,661$\frac{1}{2}$ lbs. or 1,829,276,567 beans.

RAZOR STRAPS.

Take a common strap either new or old.—Spread a small quantity of oil evenly on the side you wish efficient. Then sprinkle on the same side a very little white oxide of tin. Rub it over the whole surface carefully with the finger. The fine dust will adhere to the strap. The coarser parts may be removed by the breath and the finger. *This* forms the best possible strap—as it is an admitted fact, that this is of all others the substance best adapted for this purpose. The white oxide of tin *(pulvis stanni)* is found at most apothecaries' shops—and is to be had at 6 to 12 cts per oz. In 1821, I had an ounce, of which I have constantly made use for my own strap and several others—and now more than one-third the quantity still remains unused. Whoever has once enjoyed the luxury of a razor skilfully applied to a strap well prepared in this manner, will never be content with any other.

RECLAIMED LANDS.

I had intended to notice the subject of reclaiming land, and to present some ideas and plans which my want of success in my first essay led me to investigate and adopt—and which I have never seen mentioned or adverted to in the various articles on this subject which have appeared in your columns. Those plans are, perhaps, worth recording as they have uniformly led to the most perfect and gratifying results—and because too they may not readily occur to every one to whom they may be useful. At a moment of more leisure I will endeavor to enter into detail upon this subject. R.

Southington, Con. Feb. 1829.

FOR THE NEW ENGLAND FARMER.

HORN AIL IN CATTLE.

Mr Fessenden—I found the receipt in your paper, of January 9th, for the cure of the horn ail to be ineffectual, by experiment on an ox, last April. In the month of October, one of my oxen in high flesh, appeared to be unwell, refused to eat but little, and soon became so weak as to reel in walking, breathed very hard, and discharged such immense quantities of putrid matter from his nose, that we supposed the internal parts of his head were perishing. By the advice of a large owner of cattle, I freely applied spirits of turpentine on the top of the head, along the roots of his horns, for a number of days with apparent success, as he soon began to feed well, and in a few weeks I sold him for market. It is a severe remedy, throwing the animal into extreme agony.

Yours respectfully,
THOMAS HAZEN.

Norwich, Feb. 1, 1829.

From the New York Farmer.

ORNAMENTAL TREES IN NEW YORK.

Mr Editor—The learned and respected Corresponding Secretary of the Horticultural Society, has ascribed the failure of the ornamental trees, which have been annually planted in your parks and streets by hundreds, to the circumstances of their having been *planted too deep.* As he is professedly a student in the school of physiology, I beg leave to suggest to him *three* other causes, which I apprehend have been more fatal than the one he has noted. They are

1. The ill adaptation of trees taken from the forest to insulated and open exposures.

2. The want of fibrous roots to supply food; and

3. The want of leaves to elaborate this food, and convert it into aliment for the tree.

Trees growing in the forest have, first, a bad system of roots; those are few in number and extended in length, and are necessarily very much shortened and diminished in taking up. The fibres, which supply food to the trees, are mostly left behind, or dried up ere they are planted. The trunk and branches have besides been shielded and protected from the winds and sun by their seniors of the forest. In their new situation they are exposed to both, the heat of the latter being accumulated by the reflection of its rays from pavements, walls, &c.

Roots are to the plant what the mouth is to the animal—they are the organs of absorption or mastication. For want of the usual supply of juices, through these, the sap vessels which convey the food to the leaves, are no longer disturbed, but become contracted and callous; and the plant faints like the muzzled ox in a rich pasture. For want of the food which surrounds, and which is destined to nourish them, but which neither can take, the plant, like the animal, must die.

The New-Yorkers are like the novices who frequently apply at nurseries for trees that will *bear fruit the first year.* They select those which are unreasonably large, generally, I should judge, from the forest. They cannot wait for the slow but sure operations of nature; but are disappointed in their attempts to counteract her laws. To counterbalance the diminution which the roots of their *large* trees necessarily undergo, they reduce the top to a corresponding size, by lopping off the branches, and with most of the leaf-buds destined and essential to convert the sap into aliment.—Thus the natural circulation, which can alone impart health and vigor, is nearly destroyed; and if the plant lives, it must struggle for years, ere its organs and growth regain their pristine vigor.

I never knew death to ensue from planting a tree a few inches lower in the earth than it formerly stood; and I have now in my grounds an apple tree and a pear tree, living and growing, which have had from 18 to 24 inches of earth round their trunks for twelve months at a time.—Plants will not die from partial inhumation of their stems, otherwise the hilling of our corn and potatoes would destroy these valuable crops.

The remedy for the evil complained of, will be found in the selection of smaller trees, from nurseries or cultivated grounds, where they are furnished with better roots than those from the forest—and when they can be taken up with their roots more entire; to have them grouted when taken from the ground, and their roots kept moist till replanted—and in leaving their branches nearly entire for the first year. With these precautions and good planting, forty-nine out of fifty would live and grow.

Those of your readers who have been in Philadelphia, Troy, Ithica, and Cortland, cannot have failed to remark the beautiful and comfortable appearance which ornamental trees give to the streets of those cities and villages; nor to have learnt, if they made the inquiry, that these trees were put out when of *reasonable* size, and suffered to retain their limbs and lungs. Two good stakes, or scantling, set in the ground, with a few strips of board nailed transversely, make an efficient and often neat protection.

Dec. 14, 1828. J. BUEL.

CULTURE OF THE VINE IN THE CRIMEA.

The valley of Soudaksk, especially towards the east, is said to be one of the most enchanting scenes in the world, and America, Siberia, Italy, and Caucasus are said to offer nothing more delightful. What adds to its charms and its celebrity, is the success which has there attended the

culture of the vine; it is even thought that Russia may, at no distant period, produce wine enough in the Crimea for her own consumption. The first vineyards were planted there in the year 1804, at the suggestion of the celebrated naturalist, Pallas; the situation is named Gadjakol, in the territory of Kosi. Cuttings of vines were brought from France, Zante, Tenedos, the Rhine, Astrachan, and Kizliar; and two Frenchmen, the one a vine-dresser and the other a farmer, were appointed to plant and to manage them. Ten orphan pupils, from the military school of Cherson, were put under the care of these cultivators; government supplied the necessary capital for every part of the undertaking; and 28,000 vines were planted, which, in the year 1826, produced 1500 vedros of wine of Hungary, Bourdeaux, the Rhine, Asmalhausen, Muscat, Petit-Burgoyne, Zante, and Kakour, of the best quality.—*Bul. Un.*

[We copy the following from the New York Enquirer, of the 27th inst. The pear ripens in November, and is alluded to in the New England Farmer, current volume, page 198.]

LARGE PEAR.

Sir—I saw with pleasure that in your paper of the 22d inst you gave an account of a gigantic Pear, presented to the Royal Horticultural Society of Paris. The measures are different from the true size of the pear, which I have received of a member of the committee of said Society, which are as follows:—circumference, 13 inches and two-thirds, in the place of 15 inches; height, 8 inches, instead of 9 inches; the weight 1 pound 6 ounces, in the place of 1 pound 9 ounces. The trees are sold at 5 francs each in Paris; I have received six of that kind by the late arrival of the Bayard, which are the first introduced in this country; the gentleman who has had the goodness to direct them to me, writes me that this pear is of the first quality, as well for the flavor as for the size.

A. PARMENTIER,
Horticultural and Botanical Garden, Brooklyn, Long Island.

Receipt for making Composition Cake.—One pound of flour, one of sugar, half a pound of butter, seven eggs, half a pint of cream, and a gill of brandy.

Tea Cake.—Three cups of sugar, three eggs, one cup of butter, one cup of milk, two cups of flour, a small lump of pearlash, and make it not quite as stiff as pound cake.

Clove Cake.—Three pounds of flour, one of butter, one of sugar, three eggs, two spoonfuls of cloves—mix it with molasses.

Sore Throat from Cold.—At this season of the year, when common colds are prevalent, a better remedy cannot be prescribed for a *soreness* or *inflammation* of the *inside of the throat*, which often attends a severe *catarrh* than the following;

Mix a wine glass full of good calcined magnesia and honey, to the consistence of paste, or jelly, and take a spoonful once an hour through the day for a day or two. It is cooling, healing, and a very gentle cathartic.—*Bermuda pa.*

To dry Cows, which you wish to fatten.—Take an ounce of powdered alum; boil it in two quarts of milk till it turns to whey; then take a large handful of sage, and boil it in the whey till you reduce it to one quart; rub her udder a little with it, and give her the rest by way of drink; milk her clean before you give it to her; and as you see need requires repeat it. Draw a little milk from her every second or third day; lest her udder be overcharged.—*Monk's Agricultural Dictionary.*

From the Mass. Agric. Repository.

ON THE CULTIVATION OF THE POPPY FOR THE PURPOSE OF PRODUCING OPIUM.

"Messrs Cowley and Staines, of Winslow, Buckinghamshire, have cultivated poppies for opium, with such success, as to induce the belief, that this branch of agriculture is of *national importance*, and worthy of support. In the year 1821 they procured 60 lbs. of solid opium, *equal* to the *best Turkey opium*, (quere?) from rather less than four acres and an half of ground. The seed was sown in February, came up in March, and after proper hoeing, setting out, &c., the opium gathering commenced at the latter end of July. The criterion for gathering the opium was, when the poppies having lost their petals were covered with a bluish white mould. [With great deference, we should say that the directions would have been more clear, if they had stated the size of the capsules or seed vessels when the gathering began.] They are then scarified, [or scratched with a pin or knife, Ed.] and the head left till the juice is coagulated, about two hours, when it is removed, and new incisions made. Opium is produced until the third and fourth incisions, and in some instances till the tenth. Ninety-seven pounds were procured at an expense of (one hundred and forty-five dollars) and this being dried in the sun, yielded above sixty pounds of opium. The heads of the poppies were then allowed to dry, and were thrashed, and the seeds, it was expected, as they weighed thirteen hundred pounds, would produce seventy-one gallons of oil. The oil cake was given to cattle and pigs, with great advantage."

REMARKS.

If the cultivation of the Poppy for opium can be considered as an object of national importance in Great Britain, it seems to be certain that it must be so here. Our climate is much better adapted to this plant. Sown in May, its capsules are fit to use in July. They are larger and finer than in England. The variety from which the Turkey opium is obtained is the large single white poppy. The capsules are of the size of a large pigeon's egg. When they have obtained their greatest size, the capsule is to be slit with a pin, or sharp penknife; from the wound issues a milky kind of juice which in two hours thickens, and should then be collected and afterwards dried in the sun. In raising it on a great scale, the poppies should be sown in rows or beds, so as to permit the collectors of the opium to pass between them.

We havn no expectation that such extensive experiments will be made in our country, but many curious persons may be disposed to raise a quarter of an acre each. The remarks which have been made are the result of personal observation by J. L.

DUTCH METHOD OF EXTRACTING BLUE COLOR FROM WOAD.

The leaves are put together with water into a cask, and the mass loaded with weights. In this state they are suffered to remain for sixteen or eighteen hours, or until the saturation is complete, which is indicated by the water's assuming a yellowish green tincture. The leaves are then taken out, and the solution suffered to remain a few minutes, in order to precipitate its earthy particles; it is then filtered through a sieve of iron wire, horse hair, woollen or silk, and afterwards stirred violently for a quarter of an hour with a wooden spatula.

At this stage of the process a quantity of lime water is thrown into the extract, and the stirring is continued for some minutes longer, after which it is suffered to repose for several hours. At length a beautiful blue sediment will become deposited at the bottom of the vessel, and nothing farther is requisite than to filter, and afterwards dry it in small heaps on a wooden table by the rays of the sun, in order to bring it to a dry and marketable state.—*Bulletin des Sciences.*

[From Fessenden's New American Gardener.]

GARDENER'S CALENDAR.

February.—Manure may be carried into those places where it is needed, left in a heap, but not spread. Wherever and whenever the snow is off the ground, rake together and burn the haulm, or whatever may remain from the last year's crop.—Straw mats for the hot-beds, pales, rails, lattices, or trellises for espalier trees, should be got in readiness. See that your garden tools are in good repair, and procure such new ones as may be necessary. It is now time to set about procuring and preparing materials for, and forming hot-beds. Clean trees from moss, and protect them against mice and rabbits by whitewashing with lime, or smearing with some composition which is offensive to those vermin. Enter in earnest into the business of forwarding various kinds of seedling plants, by artificial means, so that they may have strong roots, and arrive at some size by the time they would naturally make their first appearance above ground. This may well be done by adopting Mr Armstrong's method, with regard to melons, mentioned in the New American Gardener, page 202. Attend to your fruit in your fruit-room or cellar, on shelves or in boxes, and, if necessary, pick it over, and cull out whatever is defective; wipe the remainder dry, and pack it away anew. But if it is put down in some sort of grain, dry sand, flax-seed chaff, or, what is probably best of all, pulverized plaster of Paris, you will not need to meddle with it. You may now, perhaps, begin to force asparagus in hot-beds. Sow under glass cases, for transplanting or otherwise, radishes, carrots, small salads, peas, beans, &c. Protect choice plants, which may show a disposition to vegetate, by matting, litter, cases of wicker, old bark, and other proper means.

A correspondent of the Palladium relates that a person in Boston, whose system had contracted a propensity to dropsy from sedentary employment, and whose limbs had become so much enlarged as to burst the skin, has been lately cured entirely, by laving the legs in cold water.

Pure Glass.—It is stated in the Literary Gazette, that Mr Herschell and Mr Faraday have at last succeeded in their long practised series of experiments for producing pure glass for optical purposes. It is believed that the attainment of this most desirable object will produce extraordinary results in the highest of all sciences, Astronomy.—*Nat. Journal.*

REFRIGERATORS.

(Continued from page 228.)

After constructing and using the Refrigerator which has been described, as its usefulness depended entirely on a supply of ice; I was naturally led to reflect on the most economical means of preserving it, and hence the foregoing investigation of the subject. In the course of that investigation an improvement in the Refrigerator occurred. I clearly discovered, that agreeably to the laws of heat, any refrigerating body placed in the upper part of a chamber defended from external heat, would certainly receive heat from the atmosphere of the chamber, until a common temperature was produced. I therefore concluded that if a small tin vessel was attached to the under side of the lid, of the Refrigerator, to contain the ice only, and the lid made to slide instead of raising up, that the large tin vessel might be spared; which would certainly be a great improvement, especially as in that case there would be no absolute necessity for the wooden vessel to be water tight, and some difficulty attends keeping any other than a hooped vessel in that condition. In order to prove by experiment as far as I had convenience for doing it, I removed the tin vessel from the refrigerator and placed a vessel containing water, and another milk on the bottom of the wooden vessel, one at each end; I then fixed a pewter bason containing ice and salt, as near the top as I could to admit the lid to shut over it. I found both water and milk began to freeze in about an hour; and by letting them remain some time longer they were both frozen to the bottom; the temperature of the room about 55°. Having never before seen, or heard of any liquid being frozen by means of ice and salt in a temperature above the freezing point, in any other way than by placing the vessel containing the liquid intended to be frozen in contact with the mixture; this experiment as far as it went was encouraging.—Some days afterwards the temperature of the room the same, I fixed the bason containing ice only, as before, and made use of a thermometer to try the effect. I was now disappointed by finding that I could not by this means reduce the atmosphere within the vessel as low as the ice by 6 or 8°. But on a little reflection the cause was very plain. The nonconductors enclosing that portion of atmosphere, were not so perfect but they admitted some heat to pass through, and this continually mixing therewith, before it could be taken up by the ice would of course always occasion a difference in temperature. This plan will not therefore answer the purpose as well as the other, either when a great degree of coldness is required, or when it is necessary to produce immediate effect. But for those on a large scale, such as would be proper to stand in cellars, or the holds of vessels, I think this last mentioned kind is to be preferred.

The following I think would be an eligible mode of construction. Suppose it is required to have one whose content shall be equal to six cubic feet clear of the ice vessel: let a box of wood be made three feet long two feet wide and sixteen inches deep in the clear; let another box be made of such dimensions that the first may stand within it; leaving an interstice between, on all sides, and also between their bottoms of about an inch.—The sides and one end of the outside box should also stand an inch or more above the other.—Then put as much dry sifted ashes, or rather charcoal dust if it can be had, into the large box as will cover the bottom an inch deep; set the small box within the large one, leaving the space equal on all sides. Then prepare a lid, which may rest on the top of the inside box, after thin strips are nailed on the upper edges thereof in order to cover the spaces left between the boxes; the edges of the lid confined by a ledge nailed to the outside box, or by a groove, and made to slide endwise; cut a hole of a convenient size near the middle of the lid for the purpose of putting in the ice, and connect a door to it by a hinge. The ice vessel must then be fastened to the lid: this should be made of tin or sheet iron, about two feet long, eighteen inches wide, and four inches deep, having a convenient opening at one corner to draw off the water, which may be stopped with a cork; the side and end plates of the ice vessel must be five inches wide, one inch of which must have a square turn outwards to admit of its being nailed up to the lid, which will form the top of the vessel. This being done it will be necessary to cut away one end of both boxes so as to admit the lid with the ice vessel nailed to its under side to draw out. Then fill the space between the boxes at the sides and ends, with the same material used between their bottoms; nail on the strips to confine it in, and the wood-work will be finished. The whole may then be covered with coarse blanketing, duffle, or the cloth called lion-skin; so cut as to admit of the lid being drawn out, and to cover all the joints when shut: at the end cut down, to give room for the ice vessel, it will be necessary to have a flap of several thicknesses of cloth, attached either to the end of the lid or box in such a manner as effectually to close the opening when the lid is pushed in.

An easier method of fixing the lid (and perhaps in most cases ought to be adopted) would be to let the top of both boxes be of equal height and fasten the lid thereon, having an opening in the middle a little larger than the ice vessel, through which it may hang down, suspended by the edges of its wooden top to which it should be nailed as before directed, the joints to be all closed by the woollen covering. The only inconvenience that would attend this mode would be an increased difficulty in opening, on account of its having to be lifted off when full of ice, but this might in some measure be remedied by having suitable handles, and for those that are to be stationary a small pulley.

Such an ice vessel as has been described, will probably contain about 30 lbs. of ice in lumps; and is capable of cooling more than 120 lbs. of any kind of provision or liquids put in the average summer temperature, down to 6 or 8° below the coldest spring water. I have not consulted any meteorological tables on the subject; but believe I am safe in stating the mean temperature of this climate, from the middle of the fifth month,* to the middle of the ninth month† (which is about the time ice is useful) rather below 80°. It will then require any article at that temperature to be cooled 30° to bring it to what was proposed. As it requires 146° or thereabouts of heat to convert ice to water; then, as many thirties as are contained in 146, so many pounds of the thing intended to be cooled, will each pound of ice cool to the degree required, admitting the ice to receive no other accession of heat. For the sake of round numbers, instead of 146, we will say 140, which divided by 30, quotes $4\frac{2}{3}$; 30 pounds of ice multiplied by $4\frac{2}{3}$ produces 140 pounds of the article to be cooled: if we strike off the fraction $\frac{2}{3}$, which will be just $\frac{1}{7}$ of the ice on account of that portion of external heat which will find its way in while the articles are cooling, we shall then have 120 lbs. This is much more than almost any private family would have occasion to put in daily, for the use of the family only. There are, however, some deductions to make for the heat, which would be admitted by frequently opening, and also continually passing through the sides and bottom of the boxes.

But it is impossible to calculate with certainty on the subject without more accurate experiments than I have yet made. I am, however of the opinion, that the average quantity of 20 lbs. of ice per day, will be sufficient in such a refrigerator as has been last described, to answer the purposes of a large family; even admitting, that with other things, the milk of two or three cows should be kept therein; when the weather is very warm, the necessary quantity will probably be greater, and proportionably less when cooler.

To be concluded next week.

* May. † September.

From Loudon's Gardener's Magazine.

The Dahlia may be advantageously forced by potting the roots in February, and letting them remain in frames till June, when they will begin to flower, and may be turned out into the open border.—*Matthias Sylvaticus, October* 10, 1827.

Transplanting Turnips.—For many years I have sown turnip seed on any little vacant spot, and, when the plants had two or three leaves, planted them out, by a line in regular rows.—Nothing can succeed better, or produce finer roots; hardly one in twenty dies.—*Rusticus in Urbe.*

A Strawberry was gathered, on the 20th of June, from the garden of Mr Norris, Brentford End, which measured $13\frac{1}{4}$ inches in circumference, and weighed upwards of three ounces.—*Morning Herald.*

Utility of Toads in Gardens.—Practical men have been long aware that toads live chiefly on insects, particularly beetles; some have even made it a point to place them on their hot-beds, for the purpose of destroying wood-lice, earwigs, &c. A correspondent, Mr Reeve, who has long employed toads as guardians of his melon and cucumber frames, fully corroborates all that has been said respecting their usefulness in such situations, and is so attentive to them, that, when they have cleared his beds of insects, and he finds them uneasy in their confinement, he actually feeds them, in order to keep them there. He offers them the different insects which are considered noxious in gardens, all of which they devour; even slugs are eaten by them (though this is denied by another correspondent;) and if so, this despised reptile must be a beneficial assistant to the gardener at times, and in a way he is at present but little acquainted with.—*J. M. for Cond.*

Apples may be kept all the year round, by being immersed in corn, which receives no injury from their contact. If the American apples were packed among grain, they would arrive here in much finer condition. In Portugal it is customary to have a small ledge in every apartment (immediate-

ly under the cornice,) barely wide enough to hold an apple; in this way the ceilings are fringed with fruit, which are not easily got at without a ladder, while one glance of the eye serves to show if any depredations have been committed.—*Brande's Quar. Jour.*, Jan. 1828, p. 497.

Use of Botanical Geography.—James Lee, the grandfather of the present nurseryman at Hammersmith, is said to have discovered what islands had belonged to Europe, and what to Asia, by the heath, which is abundantly dispersed over Europe, Africa, and America, but is not to be found in Asia, or in any of the islands which must have once formed a part of that continent.—*Thornton in Lee's Introduction to Botany*, pref. p. xiv.

The Caledonian Horticultural Society recently held a Meeting. Thirty-five sorts of seedling gooseberries were produced, chiefly raised from the Sulphur, Ironmonger, and Warrington, at Whitehill, near Lasswade; seed sown in 1824, and the berries sent from the original seedling bushes. The whole having been carefully examined, nine of the sorts were judged good, but two more especially preferred,—a very rough white, and a very rough yellow kind. The Meeting judging it right to encourage such zeal in raising seedling fruits, awarded the Society's silver medal to Mr David White, gardener to Colonel Ramsay, at Whitehill.

From the Delaware Advertiser.

SILK.

I am happy to see by your late papers, that you are lending your columns to the encouragement of a new and important branch of husbandry; one entirely within the means of the inhabitants of this State—*the culture of silk*. The Governor having called the attention of the Legislature to it, I offer you my mite of experience.

For some years past, the seasons have generally been unfavorable to the farmer; and the low prices of grain and wool have diminished his power of improving the soil. Under the experience of these evils, I turned my attention to the profits, and mode of rearing silk in the different countries of Europe, and in our own New England States, and have assiduously sought for the newspaper remarks of individuals from all the States, who have like myself, been making experiments in rearing the worms. On the farm on which I reside, the experiments of all have been tried, except that of rearing them in buildings constructed for the purpose. The result is a positive conviction that in *the Middle States* no profit can be derived from them, unless raised according to the European system.

If I am right in this opinion, it is important that the public should not be led astray by the essays of writers whose experiments have been made for amusement, and not with that scrupulous regard to cost, which would direct the person whose labor must be repaid. Such instruction will be found in the admirable and complete report of Mr Rush, Secretary of the Treasury.

A Mr Gideon Smith, of Baltimore, author of some essays on Silk, published in your paper, gives information to the people of the Southern States that the silk-worm will thrive in any temperature, and that they have spun him silk in a temperature of 90°. On this farm there were reared last year thirty-five thousand worms, in different apartments, subject to different temperatures. They all kept healthy, until the thermometer, which hung in the room, rose to 80°—when they began to languish; at 85 there was much disease among them,and at 90 vast quantities died in a very putrescent state. Where they suffered no greater heat than 78°, they yielded more than three pounds of cocoons to the thousand worms; but in the higher temperatures only two pounds to the thousand. From this I infer that in cool buildings, properly protected from the sun, they would yield here, as well as in Europe.

If experimentalists who write for the papers, would give the exact weight of silk obtained in different temperatures, farmers, who eventually will be the principal rearers of this article, would be convinced of the necessity of adhering as much as possible to the European standard, which does not exceed 73°.

The worms reared were of three kinds:—1st. The straw-colored silk, which forms the bulk of what is produced in Europe. 2d. Those producing the fine white silk, but lately introduced into France. 3d. The large black worm producing the orange and sulphur-colored silk, and which comes to maturity earlier than either of the others.

One great advantage, which the culture of silk would afford the farmer, is that it would give to the females and children of his family employment at home.

In consequence of the vast quantities of native mulberry trees, throughout this State, most families would have it in their power to enter into this business, on a small scale; and should the Legislature of this State find it advisable to offer any encouragement to this new branch of husbandry, a considerable quantity of Silk would in a few years be exported from Delaware.

Samples of the kinds of silk reared, will be forwarded for your inspection, by the first convenient opportunity.

AN AGRICULTURIST.

HORTICULTURAL ASSOCIATIONS.

The influence of individuals has long been concentrated in united action for the encouragement of agriculture, and the liberality of the Legislature has been freely bestowed in aid of their exertions. The beneficial results are familiar to all who have witnessed the collection of the choicest specimens of flocks and herds gathered to the annual shows, exhibiting the perfections of different races, and by comparison of various modes of management and the distribution of premiums awakening honorable emulation, stimulating industry, and adding to the wealth of the country by increasing the value of the soil and the abundance of its products. While the labors of the field have flourished under such patronage, those of the garden have been honored, in our own state, with but slight attention. Effects as important, from similar associations, acting upon the branch of agriculture whose objects are most beautiful, might be anticipated; for the art of gardening is not confined to the education of tulips and geraniums, cabbages and cauliflowers, but includes the productions of those fruits, once luxuries, now become almost necessaries. The collecting together the tenants of distant gardens, the assembling of new varieties of plants and fruits, the communication of observations and experiments, while it gratifies an useful and innocent taste, will add to the comforts and conveniences of life. The general processes of the farmer do not interest all, but those of the gardener come home to each. There is abundant room for improvement in those patches of mingled potatoes, sun-flowers and weeds, which are dignified by the name of gardens, appended to the domestic establishments of our cultivators. The introduction of valuable exotics, or useful native plants, the production of rich and rare, or common and delicious fruits, are objects which would be more promoted by one exhibition of the rewards of skill and industry, than by all the exhortations to care, and all the motives to diligence, held out in books. The distribution of seeds, the circulation of local specimens of value, the knowledge gained by the interchange of information, and more than all, the taste which would insensibly spread abroad through the community, would conduce to the prosperity of the agriculturist, while they afforded the most rational enjoyments.

Worcester Ægis.

CHANGES

Which take place in the Domestic Animals of Europe when transported to America.—The mammiferous animals transported from the Old to the New World are the hog, the sheep, the goat, the ass, the horse, the cow, the dog.—1st. *The Hog.*—This animal, in the hot valleys of South America, where he wanders whole days in the woods, living chiefly upon wild fruits, loses speedily the marks of domestication, and partakes largely of the nature of the wild boar. The year 1493 was the date of his first introduction into the New World; and now he is found established from 25 degrees north latitude, to 45 degrees south, and every where breeds as plentifully as in Europe.—2d. *The Cow.* Animals of this species appear to require a considerable quantity of *salt* as a part of their nourishment. When salt is placed where they feed, they return punctually to seek it; but when this duty is neglected by their masters, the flock disperses and becomes wild. There is also a difference in the size of the udder, particularly in Colombia, where the milk is not reckoned of the same importance as in Europe. 3d. *The Ass.* The Ass suffers hardly any alteration either in his form or habits. In some places where he is overworked and little cared for, he becomes deformed, but no where does he lose his civilization. 4th. *The Horse.* Not so with this animal: he finds chesnuts in the woods, and speedily presents one of the distinctions of wild animals—a sameness of color, which with him is almost invariably chesnut. The amble is the pace most admired by the Colombians; they accordingly breed up their horses to this mode of motion; and it is no less remarkable than true, that with the present race the amble is the natural pace, just as the trot is with our's. 5th. *The Dog* suffers no change. 6th. *The Sheep*, in temperate climates, breeds as freely as in Europe, and never shows any inclination to escape from the dominion of man. In the warmer plains they are more difficult of preservation. The wool grows slower; but if shorn at the proper time, presents nothing remarkable. If on the other hand, this time is allowed to pass, it is detached by the shears of nature; and instead of a new crop, growing, as in other cases, a short, smooth, shining hair presents itself, resembling that of the goat of the same climate. 7th. *The Goat*, although with us a mountaineer, suits better the low warm valleys of South America, than

the more elevated parts of the Cordilleras. The only change it undergoes is similar to that of the cow.—*London Weekly Review.*

FRENCH METHOD OF TRANSPLANTING.

During dry weather, the gardeners of Paris do not wait for rain as ours generally do; but, as soon as their crops require removing, it is done in the following manner: Having chosen the spot, they well water the top, and immediately dig it under, and afterwards water the fresh surface, and as soon as it is dry enough, it is raked, and the plants put in without any regard to the mid-day sun; they continue to water the bed three or four times a day, until the plants have taken root. It is surprising how soon lettuces, cabbages, etc. will be well rooted by such treatment, and with what vigor they grow after the first shower of rain.—What would have been the state of such plants had they remained in the seed bed? They would have drawn each other; their first leaves would have dropped off, and general debility would have followed, not easy to be removed: but, by the French treatment, not a leaf will be lost. Now, if we consider the principle, it is simply this: that every plant placed in the sun in water will in no way flag, and the continued wet state of the bed for the first few days is similar to it; besides, the presence of the sun contributes powerfully to the rooting of the plants.—*Eng. pa.*

NEW ENGLAND FARMER.

BOSTON, FRIDAY, FEB. 13, 1829.

ADVANTAGES OF TREES.

Cattle thrive much better in fields even but moderately sheltered with trees than they do in an open exposed country. An Italian (Gautieri) has enumerated and illustrated the advantages in point of climate which tracts of country derive from woods and forests. "These" he says "are arresting the progress of impetuous and dangerous winds; maintaining the temperature of the air; regulating the seasons; lessening intense cold; opposing the formation and increase of ice; moderating intense heats; producing abundance of water in the rivers; discharging the electricity of the atmosphere; opposing a barrier to washing away or undermining banks; preserving from inundations; preserving the soil on hills and mountains."

CULTURE OF HEMP.

Mr James Rogers, who carries letters of introduction from several gentlemen of distinction in New York, is on a tour in the State of Maine for the purpose of engaging the farmers in the cultivation of hemp. He proposes to supply them with seed, sow it for them, and take a share in the crop for his compensation.

CALVES.

Young's Annals state the following as a remedy for the scouring of calves: Powdered chalk and wheat meal moistened with gin and worked into a ball should be given the animals.

COLD WATER LOTIONS.

The Vermont Chronicle says, that "a lady of feeble habits, who has been subject to heavy colds for a long course of years, has agreeably to the recommendation of a physician, for the two last years, adopted a custom of uniformly bathing face, neck, and arms, *profusely* in cold water every morning; and it is a fact, which may be relied on, that since the adoption of this antidote, she has not experienced any cold whatever!"

BEECH-TREE LIABLE TO LIGHTNING.

It has been asserted that lightning never struck a beech-tree. But a farmer in the state of Ohio contradicts this report, and states that a beech-tree, on his farm was struck with lightning the last summer.

We perceive by a communication in the Pittsburgh Gazette, that the machinery for spinning flax by steam power, is now in complete operation in that city, and on such a scale as to create an immediate demand for flax. This will give new and profitable activity to the farmers in that vicinity.

RURAL ECONOMY OF SWITZERLAND.

Extracts from Mons. Kasthofer's Travels in the Cantons, and among the Rhetian Alps.

FARMERS' STOCK, &c.

Cows, goats and sheep constitute the principal means of support and wealth of the Swiss farmers; or to discriminate more accurately, the goats, in a great measure, support the poorer class; and the ewes supply the cheese from which the richer derive their little wealth. The extent of a pasture is estimated by the number of cows it maintains; six or eight goats are deemed equal a cow; four calves the same, four sheep, or four hogs; but a horse is reckoned as five or six cows; because he roots up the grass, [that is, destroys it by biting too close.] Throughout the high Alps, they are of opinion that sheep are destructive to the pastures, in proportion to their elevation, because the herbage, which they eat down to the roots, cannot, in such a cold climate, regain its strength and luxuriance. The mountain pastures are rented at so much for cow's feed from the 15th of May to the 18th of October; and the cows are hired from the peasants for the same period; at the end of it both are returned to their owners. In other parts the proprietors of the pastures hire their cows; or the proprietors of the cows rent the land. The proceeds of a cow are estimated at 3*l.*, or 3*l.* 10*s.* viz. 25*s.* in summer, and during the time they are kept in the valleys or in the house, at 2*l.* The Grindalwald Alps feed three thousand cows and as many sheep and goats. The cattle are attended on the mountains by herdsmen; when the weather is tempestuous, they are up all night, calling to them, otherwise they would take fright and run into danger. Chalets are built for the use of the herdsmen: these are log houses of the rudest construction, without any chimney, and a pit or trench for the fire dug round by way of a seat. Those chalets the persons whose employment it is to milk the cows, and to make cheese and butter, ascend in the summer time. When they go out to milk the cows, a portable seat with a single leg is strapped to their backs; at the hour of milking, the cows are attracted home from the most distant pastures by a handful of salt, which the shepherd takes from a leathern pouch hanging over his shoulder. During the milking, the *Ranz dez Vaches* is frequently sung.

The Swiss cows yield more milk than those of Lombardy, where they are in great demand; but after the third generation the milk falls off. In some parts of Switzerland they yield, on an average, twelve English quarts a day; and with forty cows a cheese of fortyfive pounds can be made daily. On the high pastures of Scorla, a cow during the best season, supplies nearly sixty pounds of skim-milk cheese, and forty pounds of butter. Reckoning twenty pounds of milk, observes our author, equivalent to one of butter, the produce in milk will be eight hundred pounds for ninety days, or less than nine pounds a day. This small supply he ascribes to the great elevation of the pastures, and the bad keep of the cows in the winter.

CHEESE.

Great variety of cheese is made in the districts of Switzerland; the most celebrated in the Schabzieger. To make this, the dairy is built near a stream of water; the vessels containing the milk are placed on gravel or stone in the dairy, and the water conducted into it in such a manner as to reach their brim. The milk is exposed to this temperature about six degrees of Reaumur (forty six Fahr.) for five or six days, and in that time the cream is completely formed. After this is skimmed off, the caseous particles are separated by the addition of some sour milk, and not by rennet. The curd thus obtained is pressed strongly in bags on which stones are laid when sufficiently pressed and dried, it is ground to powder in autumn, salted and mixed with either the pressed flowers or the bruised seeds of the *Melilotus Officinalis* (melilot, a species of trefoil.) The entire separation of the cream or unctuous portion of the milk is indispensable to the manufacture of Schabzieger. The unprepared curd never sells for more than three half pence a pound; whereas, prepared as Schabzieger, it sells for sixpence or sevenpence. Our author is, therefore, surprised that other cantons do not follow the examples of Glaris; and he advises other aromatic herbs to be used, and thus a variety of such cheeses manufactured.

The Bergamese make cheese with one measure of ewe milk added to three measures of cow milk; they use little rennet, and no acid, because, according to them the mixture of the two kinds of milk is of itself sufficient. It is to this management that our author ascribes the greater delicacy of flavor possessed by the ewe-milk cheese of the Bergamese over that made in the Oberland.

The celebrated cheese of Roquefort, in France, is made of a mixture of ewe and goat milk; the cheese of Sassenage and Dauphiny, of ewe and cow milk; it is said that a mixture of all the three, cow, ewe, and goat, makes the best cheese.

SHEEP

Are not a favorite stock in many parts of Switzerland; the difficulty of procuring food for them in winter is one cause. M. Kasthofer, however, mentions a fact, which if uniformly the case would, in a great measure, do away this ground of objection to sheep. He was assured that sheep suffered to remain on the mountains, during winter, procure food for themselves sufficient, not merely to support life, but to keep or render them fat, and he adds that, in Norway, when winter fodder fails, the sheep are turned out, and by scraping away the snow forage for themselves; the same is the case in Iceland.

FORESTS

In Switzerland are of great use and importance; they supply the principal winter food for cattle &c. The author observes that the native trees of any district are not of course, the most

useful and profitable trees that might grow there; he would therefore ascertain which are the most useful for fodder, or profitable for timber, and these he would substitute for native trees. One of the most useful trees in Switzerland is the Pinus Cimbra, or Stone Pine; it is indeed of very slow growth; one of them, cut down when nineteen inches in diameter, displayed three hundred and fifty three concentric circles. Its usual growth is a span in height in six years. The timber of this tree has a most agreeable perfume, and is much used for domestic utensils, as well as for wainscoating rooms. When our author visited the chateau of Tavasp, he was struck in almost every apartment with the perfume of this wood; and he remarks it as a surprising and inexplicable circumstance, that the wood should have exhaled this perfume for some centuries with undiminished strength, and without the wood itself having suffered any decrease of weight. But this wood possesses another recommendation—rooms wainscoated with it are not infested with bugs or moths. Its seeds are esteemed a delicacy; they are eaten in great quantities at the winter parties; and on these occasions the female sex display, in extracting them, a high degree of skill, mixed with much innocent gaiety and vivacity. According to Pallas an oil is extracted from them which is used at table, and might be in the manufacture of soap.

In order to expedite and secure its growth, and thus remove the principal objection to its cultivation, he advises that the seeds should be deposited in a compost of earth, and the clippings and leaves of the pineaster and the larch; or that this compost should be put round the roots of the young plants.—*London Foreign Review.*

MASSACHUSETTS LYCEUM.

A respectable number of gentlemen of the Legislature, and others, assembled in the chamber of the House of Representatives on the 16th inst. Mr Denny, of Leicester was called to the chair, and Mr Eddy, of Middleborough appointed Secretary. A number of gentlemen spoke on this occasion, and instances were cited of the successful establishment of Lyceums in Leicester, Newton, Charlton, &c; and the advantages derived from them in presenting pupils the means of acquiring that kind of information, which will prove of the most practical utility. The following resolutions offered by Mr Rand, were unanimously adopted.

Resolved, that in the opinion of this meeting, the general establishment of Lyceums in the towns of this commonwealth would have a salutary effect upon common education, and on the best interests of the community.

Resolved, that this meeting recommend that a meeting similar to the present, be held in Boston, early in the winter session of the next Legislature.

Resolved, that a committee be appointed, consisting of three gentlemen of Suffolk county, and one of each of the other counties, to take suitable measures for collecting information preparatory to the meeting next winter.

Resolved, that said committee endeavor to obtain such legislative aid, as to them may seem necessary and advisable to raise the standard of common education, and give facility to the formation of Lyceums, for this purpose.

The following gentlemen were chosen to be the committee.

Suffolk, Messrs Rand, J. B. Davis, Bigelow—*Essex*, Mr Phillips—*Middlesex*, Mr Jackson—*Plymouth*, Mr Deane—*Bristol*, Mr J. A. Parker—*Worcester*, Mr Wilder—*Hampshire*, Mr Hayes—*Hampden*, Mr Williams—*Franklin*, Mr Field—*Berkshire*. Mr Sedgwick—*Nantucket*, Mr Burnell—*Norfolk*, Mr French—*Barnstable*, Mr Marston—*Dukes*, Mr Fellows.

Grubbing Machine.—An ingenious citizen of our state, (Mr Pratt, of Washington county,) lately exhibited, near Georgetown, D. C. the operation of his Grand Grubbing Machine. He applied the machine to some noble White Oaks, 9 feet in circumference, and they were in a few minutes, and with ease, pulled down and their roots pulled up. The power used was the hands of some five or six men. The machine, will, it is thought, prove very useful to rail road and turnpike companies. The exhibition was made with a view of showing its effect to the members of Congress.—*N. Y. pa.*

Manufacture of Salt.—Mr Loring Crocker, of Barnstable, is making improvements in the manufacture of salt from sea water. He is about to throw up a high dyke around two or three acres of salt marsh, upon which he will bring the sea water, which will evaporate considerably. The water then will be conveyed to a deep trench, and from thence to the wooden vats.—*Traveller.*

Expectation and Circumstances.—The greatest injury that can be done to young persons is to bring them up to expectations of living in an easy independence, when it is not in the power of the parent to support it.

To Correspondents.—We are obliged to defer this week, an able and valuable article on Fruits and Fruit Trees, in reply to Mr Little's inquiries in our last paper—also one on New Varieties of Potatoes—Hints to Young Farmers—on Rose Bugs—Several interesting articles from a correspondent in Mansfield—and some Agricultural Extracts from The Foreign Review.

☞ Subscribers to the New England Farmer in Nova Scotia, will find their accounts with P. J. Holland, Esq. Editor of the Acadian Recorder, Halifax, where they are desired to call and settle.

Those in New Brunswick are left with Mr A. M'Leod, Editor of the St John City Gazette.

Fresh Hemp Seed.

Just received at the New England Farmer Seed Store, 52 North Market Street, a few barrels of American Hemp Seed, of last year's growth.—Also, one barrel of fresh Riga Flax Seed, well known to be superior to the common American Flax.

Farmer Wanted.

A faithful man is wanted to take charge of a small place in Roxbury, comprising a garden, orchard, &c.

☞ It must be expressly understood that no ardent spirits will be allowed on the place. Persons who are unwilling to accede to this, need not make application to the New England Farmer Seed Store, 52 North Market St. Boston.

Farmer Wanted.

A steady, faithful man is wanted to take charge of a farm in Newton—apply to J. B. Russell, New England Farmer Seed Store.

Early Potatoes.

For sale by the subscriber 30 or 40 bushels of superior early potatoes, price $1.25 per bushel. SETH DAVIS.
Newton, Feb. 13, 1829. 3teop

Farmer Wanted.

Wanted, an active, industrious man (a Scotchman will be preferred) to take the charge and assist in laboring on a farm. To a person properly qualified, a fair compensation, punctual pay, and employment for several years will be given.

☞ An entire abstinence from the use of ardent spirits, will be required. Apply to Geo. Bacon, at Thompson's Hotel, No. 9 Elm street. 3t Feb 6

Gardener Wanted.

Wanted on a place near the city, a single man who understands the management of a small garden and farm. Satisfactory recommendations will be required, and permanent employment given. Apply at this office. tf jan. 22.

Seeds for Country Dealers.

Traders in the country, who may wish to keep an assortment of Garden Seeds for sale, are informed they can be furnished at the New England Farmer office, No. 52 North Market street, Boston, with boxes containing a complete assortment of the seeds mostly used in a kitchen garden, on as favorable terms as they can be purchased in this country, neatly done up in small papers, at 6 and 12 cents each—warranted to be of the growth of 1828, and of the *purest quality*. Ornamental Flower Seeds will be added on the same terms, when ordered, as well as Peas, Beans, Early White Sweet Corn, &c, of different sorts.

☞ The Seeds vended at this establishment, are put up on a new plan this year, each package being accompanied with short directions on its management, and packed in the neatest style.—Traders are requested to call and examine for themselves. eptf Jan 23.

For Sale,

In the southeasterly part of old Marlborough, a valuable Farm, containing about 120 acres, consisting of every kind of land that is desirable to the enterprising farmer, a large portion of which is of the first quality, having a constant stream of water running through it; and the land is so situated that a number of acres are capable of irrigation. On the premises is an upright two story House, with four rooms on the floor, in good repair; a large Barn, 80 by 30, and in common seasons is filled with good hay. There are also on the farm, good Orchards, a part of which are in their prime; together with an abundance of Wood, the best of white oak, fit for wheelwrights' use, or for ship timber. There are few farms capable of more improvement, or which can be carried on at less expense. The place will be sold at a fair price, with or without the stock and utensils, at the election of the purchaser. The payments made easy and accommodating, and possession may be had on delivery of the deed. For further particulars, please inquire of William Draper, Esq. of Marlborough, of Benjamin Weld of Roxbury, or of Samuel H. Weld, on the premises, Jan. 16.

PRICES OF COUNTRY PRODUCE.

			FROM	TO
APPLES, best,	barrel.		3 00	3 75
ASHES, pot, first sort,	ton.		130 00	135 00
Pearl, first sort,	"		130 00	135 00
BEANS, white,	bushel.		80	1 12
BEEF, mess,	barrel.		10 00	10 50
Cargo, No. 1,	"		8 50	9 00
Cargo, No. 2,	"		7 50	7 75
BUTTER, inspected No. 1, new,	pound.		14	16
CHEESE, new milk,	"		7	9
Skimmed milk,	"		2	3
FLOUR, Baltimore, Howard-street,	barrel.		9 00	9 12
Genesee,	"		9 00	9 25
Rye, best,	"			
GRAIN, Corn,	bushel.		63	65
Rye,	"		75	80
Barley,	"			70
Oats,	"		30	38
HOG'S LARD, first sort, new,	pound.			9
LIME,	cask.		85	90
PLAISTER PARIS retails at	ton.			3 00
PORK, clear,	barrel.		16 00	16 50
Navy, mess,	"		13 00	13 25
Cargo, No. 1,	"		13 00	13 25
SEEDS, Herd's Grass,	bushel		2 00	2 50
Orchard Grass,	"			3 00
Fowl Meadow,	"			4 00
Rye Grass,	"			4 00
Tall Meadow Oats Grass,	"			4 00
Red Top	"			1 00
Lucerne,	pound.			50
White Honeysuckle Clover,	"			50
Red Clover, (northern)	"		8	10
French Sugar Beet,	"			1 50
Mangel Wurtzel,	"			1 50
WOOL, Merino, full blood, washed,	"		35	42
Merino, full blood, unwashed,	"		22	26
Merino, three fourths washed,	"		30	35
Merino, half & quarter washed	"		28	33
Native, washed,	"		25	28
Pulled, Lamb's, first sort,	"		37	41
Pulled, Lamb's, second sort,	"		25	30
Pulled, " spinning, first sort,	"		30	33

PROVISION MARKET.

CORRECTED EVERY WEEK BY MR. HAYWARD,

(Clerk of Faneuil-hall Market.)

BEEF, best pieces,	pound.	10	12 1 2
PORK, fresh, best pieces,	"	5	8
whole hogs,	"	5	7
VEAL,	"	5	6
MUTTON,	"	2	10
POULTRY,	"	8	12
BUTTER, keg and tub,	"	14	20
Lump, best,	"		20
EGGS,	dozen.	20	22
MEAL, Rye, retail,	bushel.		70
Indian, retail,	"		70
POTATOS,	"		60
CIDER, [according to quality,]	barrel.	2 00	2 50

MISCELLANIES.

One of the strongest efforts of the first woman in Europe—for who will compete with Mrs Hemans?

ELIJAH'S INTERVIEW.

BY MRS. HEMANS.

On Horeb's rock the Prophet stood—
The Lord before him pass'd;
A hurricane in angry mood
Swept by him strong and fast.
The forests fell before its force,
The rocks were shiver'd in its course;
God was not in the blast.
'Twas but the whirlwind of his breath,
Announcing danger, wreck, and death.

It ceased. The air grew mute—a cloud
Came muffling up the sun;
When through the mountains, deep and loud,
An earthquake thunder'd on;
The frighted eagle sprang in air,
The wolf ran howling from his lair;
God was not in the stun.
'Twas but the rolling of His car,
The trampling of His steeds from far.

'Twas still again—and Nature stood
And calm'd her ruffled frame;
When swift from Heaven a fiery flood
To earth devouring came.
Down to his depths the ocean fled,
The sickening sun look'd wan and dead;
Yet God fill'd not the flame.
'Twas but the terror of his eye
That lighten'd through the troubled sky.

At last a voice all still and small,
Rose sweetly on the ear;
Yet rose so clear and shrill that all
In heaven and earth might hear.
It spoke of peace, it spoke of love,
It spoke as angels speak above,
And God himself was here.
For, oh! it was a Father's voice,
That bade his trembling world rejoice.

FOR THE NEW ENGLAND FARMER.

Dress.—There is a certain dress suitable to every station, which to neglect would be sinking into meanness, and be a disrespect to those we live among. But nothing can be more dangerous in the education of children than cherishing in them a passion for fine clothes; and a desire for dressing more expensively than their associates, and in habiliments more costly than their circumstances will warrant.

Happiness is in the mind, and to improve the mind is a principal mean for obtaining it. Less happiness is gained by enlarging our possessions than by contracting our desires; and Diogenes, contented with his tub, was more happy than Alexander, weeping for want of another world to conquer.

Children's Expenses.—If you put into the hands of your child more money than is suitable to his age and discretion, you must expect to find that he has thrown it away upon what is not only idle but hurtful. A certain small regular income may be well for any child above six years of age. And when he comes to be capable of keeping an account, he ought to be obliged to do it; he will thereby acquire a habit of frugality, attention and prudence, which will last him through life. On the contrary giving a young person money to spend at will, without requiring any account of it, is leading or rather forcing him into extravagance and folly.

Fashionable Vices.—Many young men plunge into extravagance, idleness, and dissipation, not from any natural propensity to those vices, but from a desire to be or seem to be fashionable.—But vices of adoption and imitation are of all others most disgraceful and unpardonable.

Concord Lyceum.—The first Lecture before this Society was given in the Court House, on Wednesday evening last, by Rev. BERNARD WHITMAN, of Waltham. The subject was "*Popular Superstitions*," and was treated in a very instructive and interesting manner. The meeting was well attended; we should think full three hundred hearers were present, some of whom came from adjoining towns. The President announced, that a second Lecture would be given, by Dr HORATIO ADAMS, on Wednesday evening next, at the same place.—*Concord Yeoman.*

Blackstone Canal.—Messrs Fox, Jewett, and Brigham, a committee of the citizens of Fitchburg, have invited a meeting of all persons in favor of taking measures to procure an extension of the Blackstone Canal from Worcester to Fitchburg—to be held at Whiting's Tavern in Sterling, on the forenoon of Monday, the 9th of February. Such an extension would probably pass through West Boylston, and Leominster, and would, perhaps, eventually connect with Nashua river, which empties into the Merrimac—and thus make a half circle round Boston.

Wild Pigeons.—Innumerable multitudes of Pigeons have been for many days passing and repassing over this town. One flock which passed over literally obscured the atmosphere, and could be observed in every direction as far as the eye could reach, and making a noise like a strong rush of wind. No calculation can possibly be made of its extent with any degree of accuracy; but we should imagine, from the time occupied in their passage, that the foremost ones might have flown thirty miles by the time the latter part of the flock had passed over! We have no doubt but that, if the pigeons in the *one flock* above noticed could be enumerated, they would at least amount to as many in number as the dollars lost by the Adams man in Baltimore, in the great bet. The weather, for several weeks past, has been almost as mild as during our Indian summer.

Piqua, (Ohio,) January 3.

Fishermen's Sham Fight.—The Gloucester paper at the close of an article on the abuse of the Militia System, has the following anecdote:—"About 12 years since, a large body of our Fishermen were warned to appear according to order, and after going through the rigmarole nonsense usual on such occasions, the regiment was ordered to prepare for a sham fight. The late Col. Haskell commanded the Sandy Bay militia, composed entirely of Fishermen, who had hardly got their sea legs off, and certainly not their military ones on. When the order of attack was given, Capt. H. addressed his men in their own language, viz: "Off mittens, boys, and after them." And tigers like, on they rushed, with fixed bayonets, to the horror and dismay of their opponents, who to save their bacon, took to their heels, with half a regiment of fishermen in full chase, determined as was supposed, to do execution, and cover themselves with immortal glory! But they were stopped from their bloody designs. Not a heart was wounded, except by fear, nor a bone broken, to the credit of the gallant officers, who were the first to run."

We learn that the Directors of the Baltimore and Ohio Rail Road Company have received letters from their Engineers now in Europe, informing that they reached Liverpool after a passage of 19 days, were in good health and had met a very kind reception from the Engineers engaged on the Liverpool and Manchester Rail Road, to whom they had taken letters of introduction and discovered the most liberal and friendly disposition to give them every information. The Engineers accompanied by those gentlemen, were, on the first ult., actively employed in their examinations.—The Liverpool and Manchester Rail Road was steadily advancing towards completion—the stock of the company, which a short time after the commencement of this work, had fallen below par, was, at the last dates, 60 per cent. premium.—*Baltimore Patriot.*

For Sale,

A valuable Farm in Stoddard, in the county of Cheshire, N. H., formerly occupied by Esq. Emerson as a tavern, containing about 220 acres of good land, well proportioned in mowing, tillage, orchard, pasture and wood land, with a fine growth of sugar maple. The farm is pleasantly situated on the great road leading from Boston, Mass. to Charlestown, N. H., and has on it, a large dwelling house, three barns, a cider mill and house, with other out buildings, all convenient and in good repair. It would be exchanged for real estate in the neighborhood of Danvers, Mass., or sold on very liberal terms. For more particular information, apply to Joel Wright, on the premises, to Abel Stacy, of Stoddard, or to

DANIEL KING, or } Of Danvers.
EBENEZER KING, }

jan. 29. 1829. 3t

Pressed Culinary Herbs.

For sale at the New England Farmer Seed Store, No. 52, North Market street, Culinary Herbs, dried, pressed, and neatly packed, in parcels, at the following prices:—Sweet Marjoram, 50 cts—Summer Savory, 25 cts—Thyme, 33 cts—Sage, 17 cts—Celery, (in boules for soups, &c,) 25 cts—Balm, 33 cts—Rose Flowers. $1,00. eptf

Assorted Seeds for Families.

For sale at the New England Farmer Seed Store small boxes of assorted Seeds for Kitchen Gardens. Each box contains a package of the following Seeds:

Early Washington Peas	Long Dutch Parsnip
Dwarf Blue Imperial Peas	Large Cabbage Lettuce
Late Marrowfat Peas	Long Green Turkey Cucumber
Early Mohawk Dwarf string Beans	Pine-apple Melon
	Long, or Round Watermelon
China Dwarf string and shell Beans	Nasturtium
	Large White Onion
Lima, or Saba Pole Beans	Large Red Onion
Long Blood Beet	Curled Parsley
Early Turnip-rooted Beet	Flat Squash Pepper
Early York Cabbage	Early Scarlet Short-top Radish
Large late Drumhead Cabbage	White Turnip Radish
Cape Savoy Cabbage	Salsaify
Red Dutch Cabbage *(for pickling)*	Early Bush Squash
	Early White Dutch Turnip
Early Horn Carrot	White Flat Turnip
Long Orange Carrot	Yellow Stone Turnip
White Solid Celery	Winter Crook-neck Squash.
Curled Cress	—
Early Cucumber	POT HERB SEEDS.
Early Silesia Lettuce	Thyme—Sage—Marjorum.

The above list, it will be seen, comprises all the common vegetables, besides several new varieties of recent introduction, and uncommon excellence. Every kind is warranted of the very first quality, as to freshness and purity. Each box contains directions for the management of the different sorts. Price $3 per box.

Published every Friday, at $3 per annum, payable at the end of the year—but those who pay within sixty days from the time of subscribing, are entitled to a deduction of fifty cents.

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